

26720  
S/056/61/041/005/035/038  
B109/B102

24.6700  
AUTHORS: Baldin, A. M., Lebedev, A. I.

TITLE: A peculiarity of the photoproduction of threshold  $\pi^0$ -mesons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,  
no. 5(11), 1961, 1688-1689

TEXT: Experimental data on the photoproduction of  $\pi^0$ -mesons are not fully consistent with the values expected from theory. This is due mainly to the uncertain evaluation of the dispersion integral. The authors studied the region of angles near  $\theta = 0^\circ$ , where the discrepancy between experiments and theory becomes particularly obvious. In this region the differential  $\pi^0$  photoproduction cross section is highly sensitive to changes of the dispersion integrals. The photoproduction cross section is given by

$$\frac{d\sigma}{d\Omega} \Big|_{\theta=0^\circ} = \frac{q^2}{k} |F_1(q^2, \theta = 0^\circ) - F_2(q^2, \theta = 0^\circ)|^2, \quad (1)$$

and the empirical amplitude equation

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A peculiarity of the photoproduction...

$$(F_1 - F_2)_{\omega=0} = \left[ \sqrt{k\omega}(-0.3 + 0.7q) + 1.241 \cdot \frac{2}{3} (a_1 - a_3) \times \right. \\ \left. \times \left(1 - \frac{q^2}{3\omega}\right) \sqrt{qq_*} \right] \cdot 10^{-3}. \quad (2)$$

X

is written down.  $a_1 - a_3 = 0.245$ .  $q$  and  $k$ , respectively, denote the momenta of meson and photon in the c.m.s.,  $F_1$  and  $F_2$  are the invariant amplitudes of photoproduction,  $q_+$  is the momentum of the  $\pi^+$ -mesons,  $\omega = \sqrt{1 + q^2}$ ,  $\gamma = \mu = c = 1$ . Eq. (2) shows that for  $q_0^2 \sim 0.18$ , the quantity  $\text{Re}(F_1 - F_2)_{\omega=0}$  vanishes, so that the cross section is determined entirely by the small imaginary part of the amplitude which is connected with the scattering of charged mesons. Conclusions: (1) The function  $(d\sigma/d\Omega)_{\omega=0} = f(E_\gamma)$  has a clear minimum. This is consistent with the results of G. K. Ustinova (ZhETF, 41, 583, 1961). (2) The position of this minimum is highly sensitive to changes of the dispersion integral. Therefore, the influence of  $\pi\pi$  interaction on meson photoproduction is rather strong. When, for instance, the contribution of meson-meson

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A peculiarity of the photoproduction...

interaction amounts to  $\Lambda/e = \pm 2$ ,  $\text{Re}(F_1 - F_2)_{\theta=0^\circ}$  will vanish at  $q_0^2 \approx 0.05$  (+) and at  $q_0^2 \approx 0.30$  (-). This explains the discrepancies between experiments and theory. Moreover, this effect has a considerable influence upon the ratio  $(d\sigma_{dd}/d\Omega)/(d\sigma/d\Omega)$  at  $\theta = 0^\circ$ , where  $d\sigma_{dd}/d\Omega$  is the cross section of the process  $\gamma + d \rightarrow d + \pi^0$ . In momentum approximation

$$\left[ \frac{d\sigma_{dd}}{d\Omega} / \frac{d\sigma}{d\Omega} \right]_{\theta=0^\circ} = \frac{8}{3} \left| \frac{V}{V+S} \right|^2 I^2 \quad (3)$$

is valid. V and S are the isovectorial and isoscalar parts of the photoproduction amplitude, respectively.  $I^2 \approx 1$  is the deuteron form factor. When  $q \approx q_0$ ,  $d\sigma_{dd}/d\Omega$  will depend on S to a considerable extent.

This may be helpful in understanding some phenomena in  $\pi\pi$  interaction which is connected with a two-meson intermediate state which contributes to S only. There are 1 figure and 5 references: 2 Soviet and 3 non-Soviet. The three references to English-language publications read as follows: A. Logunov, A. Tavkhelidze, L. Solovyov. Nucl. Phys. 4, 427,

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A peculiarity of the photoproduction...

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1957; G. F. Chew, M. L. Goldberger, F. E. Low, Y. Nambu, Phys. Rev., 106,  
1345, 1957; J. Hamilton, W. S. Woolcock, Phys. Rev., 118, 291, 1960;  
J. S. Ball, Phys. Rev. Lett., 5, 73, 1960.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Institute of Physics imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: July 20, 1961

Card 4/4

BALDIN, A.N.; KOMAR, A.A.; SARANTSEVA, V.R.

Hypercharge and degeneracy in respect to isotopic spin. Dubna,  
Ob"edinennyi in-t iadernykh issledovaniii, 1962. 4 p.

1. Lebedev Physical Institute, Moscow (for Komar).  
(No subject heading)

BALDIN, A. M.; NOUYEN-VAN-HIEU

"On a Possibility of Determination of the Magnetic Momenta of the  
Unstable Vector Particles"

report presented at the Intl. Conference on High Energy Physics, Geneva,  
4-11 July 1962

Joint Institute for Nuclear Research, Laboratory of Theoretical Physics

BALDIN, A. M.

" $\chi$  -Meson Photoproduction near Threshold"

report presented at the Intl. Conference on High Energy Physics, Geneva,  
4-11 July 1962

Joint Institute for Nuclear Research, Laboratory of Theoretical Physics

BALDIN, A. M.; LEBEDEV, A. I.

"Photoproduction of  $\pi^+$  -Mesons near Threshold"

report presented at the Intl. Conference on High Energy Physics, Geneva,  
4-11 July 1962

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S/056/62/042/003/042/049  
B108/B102

AUTHORS: Baldin, A. M., Nguyen-Van-Kh'yeu

TITLE: One possibility of determining the magnetic moments of  
unstable vectorial particles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,  
no. 3, 1962, 905-906

TEXT: The vectorial nature of some unstable particles and their abnormal  
magnetic moments may be established by separating the off-center part of  
the amplitude of photoproduction of these particles. Photoproduction of  
spin-1 K'-particles ( $K\pi$ -resonance) and of biperons ( $\pi\pi$ -resonance) is  
discussed. The cross section of photoproduction of  $K^+$  on a proton is

$$\frac{d\sigma}{d\Omega} = \frac{e^2 f^2}{(8\pi)^2 k} \frac{q}{k} (F_1 g^2 + F_2 g + F_3/E^2(x + m^2)^2) + B.$$
 The term B implies  
the amplitude of head-on collision and an interference term; f is the  
 $K^+N\gamma$  interaction constant, g - gyromagnetic ratio, q - momentum of meson,  
k - momentum of photon,  $x = (\vec{k} - \vec{q})^2 - (k^c - q^o)^2$ , E - total energy in the  $f$   
Card 1/2

One possibility of determining ...

S/056/62/042/003/042/049  
B108/B102

c.m.s., m - mass of meson. The functions  $F_2$  and  $F_3$  become zero for neutral particles. Measurement of the photoproduction cross section of unstable particles at small angles is necessary to estimate the quantity  $f$  and the product  $f^2 g^2$ . Professor M. A. Markov is thanked for his interest. There are 3 figures and 4 references: 2 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: M. Alston et al. Phys. Rev. Lett., 6, 300, 1961; W. R. Frazer, I. R. Fulco. Phys. Rev. Lett., 2, 365, 1959; P. Cziffra et al. Phys. Rev., 114, 880, 1959.

ASSOCIATION: Ob'yedinennyj institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: December 9, 1961

Card 2/2

BALDIN, A.N.; KOMAR, A.A.

Symmetry of strongly interacting systems with hypercharge  
 $\gamma = 0$ . Dubna, Ob'edinennyi in-t iadernykh issledovanii,  
1962. 5 p.

(No subject heading)

S/903/62/000/000/028/044  
B102/B234

AUTHOR: Baldin, A. N.

TITLE: Review of papers on the theory of photonuclear reactions

SOURCE: Yadernyye reaktsii pri malykh i srednikh energiyakh; trudy Vtoroy Vsesoyuznoy konferentsii, iyul' 1960 g. Ed. by A. I. Davydov and others. Moscow, Izd-vo AN SSSR, 1962, 408-418

TEXT: The review covers the period between two conferences, 1957-1960. The main theoretical problems are briefly discussed such as e.g. the electrical polarizability of nuclei, the total absorption cross section in connection with the optical anisotropy of nuclei, the problems of optical anisotropy and elastic photon scattering in the ( $\gamma, n$ ) reaction threshold range. There are 27 references.

Card 1/1

BALDIN, A.M.; KOMAR, A.A.

Degeneration with respect to isotopic spin, and the hypercharge. Dokl.  
AN SSSR 146 no.3:574-576 S '62. (MIRA 15:10)

1. Fizicheskiy institut im. P.N.Lebedeva AN SSSR. Predstavлено  
академиком I.Ye.Tammom.  
(Nuclear spin) (Isotopes)

ACCESSION NR: AT3012927

S/2504/63/019/000/0003/0036

AUTHOR: Baldin, A. M.

TITLE: Photoproduction of pions near threshold

SOURCE: AN SSSR. Fizicheskiy institut. Trudy\*, v. 19, 1963, 3-36

TOPIC TAGS: pion, Pi meson, photoproduction, charged meson photo-  
production, neutral meson photoproduction, photoproduction near  
threshold, dispersion relations, pion photoproduction dispersion re-  
lations

ABSTRACT: A review article intended primarily for experimental  
physicists and aimed at updating an earlier report by the author and  
V. Mikhaylov (UFN, v. 44, 200, 1951). The old results which have  
not lost their validity and which play a definite role in meson  
physics are highlighted. In addition, the experimenter's attention  
is called to the effects that, in the author's opinion, are most sig-  
nificant. The results discussed in greatest detail have either not  
been published at all, or are in foreign journals and in conference  
materials. The topics treated are: qualitative features of photo-

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ACCESSION NR: AT3012927

production of pions on nucleons near threshold, dispersion relations for pion photoproduction, analysis of experimental data on the basis of dispersion relations, photoproduction of neutral and charged mesons on deuterium, estimates of the role of the interaction between the mesons and nucleons in the final state, and a brief discussion of the experimental data. Orig. art. has: 12 figures, 63 formulas and 2 tables.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR  
(Physics Institute, AN SSSR)

SUBMITTED: 00

DATE ACQ: 05Sep63

ENCL: 00

SUB CODE: PH

NO REF Sov: 020

OTHER: 033

Card 2/2

VVEDENSKIY, B.A., *glav. red.*; VUL, B.M., *glav. red.*; SHTEYNMAN, R.Ya., *zam. glav. red.*; BALDIN, A.M., *red.*; VONCOVSKIY, S.V., *red.*; GALANIN, M.D., *red.*; ZENGOV, D.V., *red.*; ISHLINSKIY, A.Yu., *red.*; KAPITSA, P.L., *red.*; KAPTSOV, N.A., *red.*; KOZODAYEV, M.S., *red.*; LEVICH, V.G., *red.*; LOYTSYANSKIY, L.G., *red.*; LUK'YANOV, S.Yu., *red.*; MALYSHEV, V.I., *red.*; MIGULIN, V.V., *red.*; REBINER, P.A., *red.*; SYRKIN, Ya.K., *red.*; TARG, S.M., *red.*; TYABLIKOV, S.V., *red.*; FEYNBERG, Ye.L., *red.*; KHAYKIN, S.E., *red.*; SHUBNIKOV, A.V., *red.*

[Encyclopedic physics dictionary] Fizicheskii entsiklopedicheskii slovar'. Moskva, Sovetskaia Entsiklopediia. Vol.4. 1965. 592 p. (MIRA 18:1)

AUTHOR: Baldwin, A. M.; Govorkov, P. B.; Tikhonov, S. P.; Tolokov, A. I.

TRANSLATOR: Nekrasov, V. V.; Kostylev, V. V.; Gerasimov, V. V.

EDITOR: Nekrasov, V. V.; Kostylev, V. V.; Gerasimov, V. V.

TYPEWRITER: Nekrasov, V. V.; Kostylev, V. V.; Gerasimov, V. V.

REVIEWER: Nekrasov, V. V.; Kostylev, V. V.; Gerasimov, V. V.

REVISOR: Nekrasov, V. V.; Kostylev, V. V.; Gerasimov, V. V.

DAN SSSR. 122, 361, 1958 A. M. Baldwin A. A. Kravet. Publ. Int. Conf. on High

Temperature Physics. Moscow, 1958. P. 122. 1958. 122. 361. 1958. A. M. Baldwin A. A. Kravet. Publ. Int. Conf. on High

Temperature Physics. Moscow, 1958. P. 122. 361. 1958. A. M. Baldwin A. A. Kravet. Publ. Int. Conf. on High

Temperature Physics. Moscow, 1958. P. 122. 361. 1958. A. M. Baldwin A. A. Kravet. Publ. Int. Conf. on High

Card 1/2

L 41012-68

ACCTION NR. APPROV100

Some August 1964 article in the Soviet journal "Radioelektronika i Svyazi" has a formula for calculating the energy loss of protons in matter. This is based on the same theory as the one used by us, but it gives different results. We can check this by doing some experiments with protons. It would be good to have more information on protons in the future. This could then eliminate the discrepancies found in the article. Orig. art. has 9 formulas.

SUBMITTED: 20Jul64

ENCL: 00

SUB CNTY: WP

MR: R&F SOV: UUC

UTMTR: A02

L 2742-56 EWT(m)/EWP(c)/EWP(t)/EWP(b) DIAMP/IJP(c) JD  
ACCESSION NR: AP5024329 UR/0367/65/002/002/0211/0214

AUTHOR: Baldin, A. M.

71

28

22

B

TITLE: Excited  $0^+$  level in the  $\text{He}^4$  nucleus. "Mirages"

SOURCE: Yadernaya fizika, v. 2, no. 2, 1965, 211-214

TOPIC TAGS: atomic theory, nuclear structure, nuclear physics, alpha particle

ABSTRACT: A theoretical interpretation is given for the parameters of the  $0^+$  excited state in the  $\text{He}^4$  nucleus with quantum numbers which coincide with those of the ground state and an energy of ~20 Mev. It is shown that a simple generalization of the effective radius approximation can be used for explaining the existence of this state, its quantum numbers, position and width, and for predicting similar levels in other nuclei. These levels are a reflection or image of the ground state and have many of its properties, therefore they are called "mirages". Levels of this type are predicted in the nuclei of  $\text{H}^3$  and  $\text{He}^3$  in the 2-2.5 Mev region with a spin of  $1/2$ , positive parity and isotopic spin of  $1/2$ . The use of the "mirage" concept is illustrated by analyzing the properties of systems with a small number of nucleons. The calculations show that all the experimental data on the  $0^+$  excited

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L 2742-66

ACCESSION NR: AP5024329

level in the  $\text{He}^4$  nucleus(including the quantum numbers)can be completely explained without the introduction of model representations. The theory contains two parameters:  $\rho_0$  and  $\rho'$ . One of these,  $\rho'$ , is of little importance for interpretation of the available experimental data; experimental accuracy must be improved for determining this parameter. The second parameter  $\rho_0$  is determined by two independent methods to an accuracy of better than 5%. This parameter has a clear physical meaning and a reasonable value. "The author is deeply grateful to A. I. Lebedev for stimulating discussion and to I. Ya. Barit, V. A. Sergeyev, D. A. Zaikin and I. M. Frank for discussing the results of the work." Orig. art. has: 1 figures, 10 formulas.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 17Mar65

ENCL: 00

SUB CODE: NP

NO REF Sov: 005

OTHER: 003

Cord 2/2

L 21572-66 EWT(1)/EWT(m)/T 46

ACC NR: AP6011458

SOURCE CODE: UR/0386/66/003/007/0263/0268

AUTHOR: Baldin, A. N.

ORG: Joint Institute of Nuclear Research (Ob'yedinennyj institut yadernykh issledovanij)

TITLE: Electromagnetic interactions in the quark model

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 3, no. 7, 1966, 265-268

TOPIC TAGS: quantum electrodynamics, meson, baryon, photoproduction, electromagnetic interaction, Gamma interaction, proton interaction, neutron interaction, quarks, particles, quark

ABSTRACT: The author obtains and discusses several relations that do not follow from SU(6) symmetry, but have a sufficiently general character, and make it possible, by using representations concerning the quark structure of particles, to obtain for the current operator a more concrete form than is deducible from SU(6) symmetry. Use is made of only that part of the Lagrangian for the interaction between mesons and quarks which is due to pseudoscalar mesons. The mesons are regarded as external field and the entire analysis corresponds to a large quark mass. The electromagnetic interaction is introduced by starting from the gauge invariance requirement. The c.m.s. meson photoproduction cross section is expressed in this

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L 21572-66  
ACC NR: AP6011488

model in the form

$$\frac{d\sigma}{d\Omega} = \frac{q}{k} \frac{E_1 E_2}{W^2} |(\mathbf{D})|^2 = \alpha q/k$$

( $q$  and  $k$  are the three-dimensional momenta of the meson and photon respectively,  $E_1$  and  $E_2$  the total energy of the baryon before and after the collision,  $W = k + E_1$  is the total energy, and  $(\mathbf{D})$  is obtained with the aid of the well-known fully-symmetrical functions of the baryon 56-plet). The calculated values of  $\alpha$  are summarized in a table together with the experimental data by others. The table shows that the agreement with experiment is much better than expected. In particular, the model explains the experimentally observed sharp differences between the angular distributions in the reactions  $\gamma + p \rightarrow e^0 + \pi^+$  and  $\gamma + p \rightarrow \Lambda + K'$  and the large ratio of the  $\gamma + p \rightarrow \Delta^{++} + \pi^-$  and  $\gamma + p \rightarrow \Delta^0 + \pi^+$  cross sections. The calculated ratio of the squares of the matrix elements of the  $K$ -meson photoproduction reactions and the ratio of the probabilities of the vector-particle decays, which can serve as a check on the model, agree well with experiment, but the predictions of the model contradict the predictions of the naive dipole model of meson photoproduction. The author thanks S. B. Gerasimov, A. B. Govorkov, and A. A. Komar for useful discussions. Orig. art. has: 4 formulas and 2 tables.

SUB CODE: 20 / SUBM DATE: 16Feb66 / ORIG REF: 002 / OTH REF: 004

Cord 2/2 ULR

BALDIN, A.V., inzh.

New equivalent materials for modeling ore recovery by blasting.  
Nauch. soob. IGD 17:58-63 '62. (MIRA 26:7)  
(Blasting--Models)

BALDIN, A.V.

Method of laboratory investigation of the of ores transportation  
by the force of explosion. Nauch.socob. IGD 22:108-116 '63.  
(MIRA 17:5)

ACC NR: AP7002588

(A, N)

SOURCE CODE: UR/0413/66/000/023/0081/0082

INVENTORS: Konotop, V. A.; Baldin, E. G.

ORG: none

TITLE: Device for determining the heat content of a plasma jet. Class 42, No. 189160

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 81-82

TOPIC TAGS: enthalpy, plasma jet

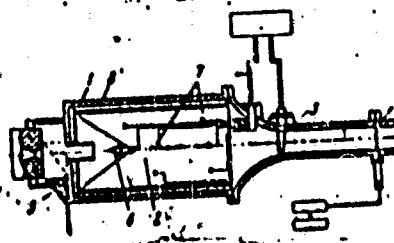
ABSTRACT: This Author-Certificate presents a device for determining the heat content of a plasma jet. It contains tubing, a calorimeter, and devices for measuring the temperature, pressure, and flow rate of the cooled gas. To broaden the range of measurements, a stop valve for dosed feed of the plasma jet is mounted at the input of the calorimeter (see Fig. 1). The calorimeter is made of metal with high thermal conductivity in the form of a compartment with plates mounted in it and oriented along the flow and with a detachable cone in the forward part. Several thermocouples are mounted in the calorimeter, and the gap between the tubing and the calorimeter is a vacuum.

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UDC: 536.6:621.317.7.082.6

ACC NR: AP7002588

Fig. 1. 1 - tubing; 2 - calorimeter;  
3 - device for measuring tempera-  
ture and pressure; 4 - device for  
measuring flow rate; 5 - stop  
valve; 6 - cone; 7 - thermocouples;  
8 - vacuum gap



Orig. art. has: 1 diagram.

SUB CODE: 20/ SUBM DATE: 11Aug65

Card 2/2

BALIN, G.

Baldin, G. "The innovator", (Machinist D. A. Korobkov,  
Tyl'a Repot. sketch), Tul'skiy al'manak, Book 1, 1946,  
p. 119-28.

SO: U-1531, 16 Sept. 53, (Leteropis 'Zhurnal 'nykh Statey, No. 24, 1946).

BALDIN, Georgiy (Petrovskiy Zavod-Chita-Kuenga).

In Transbaikalia. Put' 1 put.khoz. no.9:21-23 S '57. (MIRKA 10:10)  
(Transbaikalia--Description)

~~BALDIN, G.A. (stantsiya Pereyednaya)~~

K.E.Voroshilov was born here. Put' i put.khoz. no.11:39 N '57.  
(MIRA 10:11)  
(Voroshilov, Kliment Efremovich, 1881- )

BALDI", Georgiy (Kishinov)

~~Golden key; a sketch. Put' i put. khoz. no. 8:39-41 Ag 15.~~  
~~(RA 11:8)~~

(Railroads--Employees)  
(Railroads--Track)

BALDIN, Georgiy (Tula)

Good marks. Put' i put. khos. no. 3:15-16 Mr '59.

(MIRA 12:6)

(Railroads--Track) (Railroads--Employees)

BALDIN, Georgiy

Thoughtful foreman. Put' put.khoz. m.9:20-21 8 '59.  
(MIRA 12:12)  
(Transbaikalia--Railroads--Maintenance and repair)

BALDIN, Georgiy, (g.Barnaul)

Zinatula Zagidulin. Put' i put.khoz. no.10:20-21 0 '59.  
(MIRA 1):2)

(Railroads--Maintenance and repair)

BALDIN, Georgiy (Perm')

Man with a profession keeping him constantly on the alert.  
Put' i put,khoz, no.11:22-23 N '59. (MIRA 13:4)  
(Perm—Railroads)

BALDIN, Georgey (stantsiya Bordichev, Yugo-Zapadnoy dorogi).

On a new track. Put' i put.khoz. 4 no.6:40-41 Je '60.  
(MIRA 13:7)  
(Railroads--Track)

BALDIN, Georgiy; SOSKOV, Pavel

Petr Voronkov; story. Put' i put. khoz. 8 no.1:45-46 '64.  
(MIRA 17:2)

BALDIN, G.A., red.; USENKO, L.A., tekhn. red.

[Struggling for a sound track] V bor'be za zdorovyi put'.  
Moskva, Transzheldorizdat, 1962. 70 p. (MIRA 15:12)  
(Railroads--Track) (Socialist competition)

USSR/Electronics - Television

Card 1/1

Author(s) : Semenov, V. and Baldin, L.

Title : A Color Television Set (Lit., "A Television Set for Reception of Colored Television")

Periodical : Radio. 5, 33 - 35, May 1954

Abstract : The article first explains the basic principle of color television. It then gives a detailed description of the set, in general, and its individual parts, in particular, namely: the radio block; the scanning screens; the feedback; the operation of the image channel and the sound track; the incoming, the intermediate, and the terminal stages; the intermediate and the low-frequency amplification; the signal detection, and other details. A block diagram of the television set, and three other illustrations, showing a front and back view of the chassis and the general view of the set, are also given.

Institution : ....

Submitted : ....

57-1000-101

USSR/ Electronics - Color television receivers

Card 1/2 Pub. 89 - 20/31

Authors : Semenov, V., and Baldin, L.

Title : Television set "Raduga" (Rainbow)

Periodical : Radio 11, 32-36, Nov 1954

Abstract : The color television set "Raduga" was designed for reception of telecasts transmitted by the Moscow Experimental Color-Television Station (MOSTeST). The picture-channel and audio sensitivity of the set are 350 and 200 microvolts, respectively. The passband through the picture-channel is no less than 8.3 megacycles. The audio parameters conform to GOST Standards (USSR Bureau of Standards) for radio receivers Class I and II. The "Raduga" television set operates on 23 miniature tubes and one cathode-ray tube 18LK6B (18J7K6B). The following individual units are described in detail: 1) amplification of audio & picture-signal channels; 2) selector-stage and synchronizing pulse-sending circuits; 3) Scanning system and high-voltage rectifier, and 4) color system. Care in handling and tuning the color

Card 2/2 Pub. 89 - 20/31

(Additional Card)

Radio 11, 32-36, Nov 1954

Abstract : television receiver is discussed. Data on coils and types of windings are given in a special table. (One general circuit diagram); table; drawings.

Institution : ...

Submitted : ...

USSR/Electronics - Television receivers

Card 1/1 : Pub. 89 - 18/26

Authors : Semenov, B., and Baldin, L.

Title : Adjusting the "Raduga" television receiver

Periodical : Radio 12, 37-40, Dec 1954

Abstract : The method of adjusting the "Raduga" color-television receiver and the tuning instruments are described. Detailed instructions are given for tuning the video-amplifiers, audio receiver, and the input circuits. Graphs are presented on the frequency characteristics of the various stages of the video signal amplifiers, and the audio-frequencies of the receiver, as well as oscillograms of the scanning-system pulses. Voltages impressed on the plate, cathode, and grid of each of the 23 tubes of the television set are given in a special table. Graphs; table.

Institution : .....

Submitted : .....

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R000103

Baldin, I. A. "Seismic Prospecting in the Tumenets Basin." In the book: Geofizicheskoe  
Metody Razvedki v Zapadnoi Sibiri, Tomsk, 1995, pp. 172-180.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R000103

SHILKOV, A.P.; BALDIN, N.M.

Diagram for multiple station electric welding. Rats.i izobr.predl.  
v stroi.no.100:23-24 '54.  
(MIRA 8:10)  
(Electric welding)

BALDIN, P. O.

Tomatoes

Vegetative hybridization of tomatoes. Agrobiologija No. 4, 1952.

Monthly List of Russian Acquisitions. Library of Congress. November 1952. Unclassified.

RABIN, F.O.

Vysokie uroshai pomidorov na priusadebnom uchretke (High yields of tomatoes on a personal plot). Moscow, Sel'khozgiz, 1954. 69 p.

SO: Monthly List of Russian Accessions, Vol 7, No. 8, Nov. 1954

BALDIN, S.A.; GAVRILOVSKIY, V.V.; CHUKREYEV, F.Ye.

Scintillations in high-pressure helium induced by alpha particles.  
Atom.energ. 3 no.10:331-334 O '57. (MIRA 10:10)  
(Scintillation counters)

BALDIN, S.A.

AUTHOR: Baldin, S.A., Gavrilovskiy, V.V., Chukreyev, F.Ye. 89-10-13/36  
TITLE:  $\alpha$ -Particles Induced Scintillations in High-Pressure Helium  
(Stsintillyatsii v gelii pri vysokikh davleniyakh pod deyatvym  
 $\alpha$ -chastits)  
PERIODICAL: Atomnaya Energiya, 1957, Vol 3, Nr 11, pp 331-334 (USSR)

ABSTRACT: The scintillations were investigated because the attempt was made to find a sufficiently effective method of establishing the polarization degree of a neutron beam of 2 - 20 MeV. This method is based upon the registration of the coincidences between the scattered neutrons and the recoil nuclei in the scintillation chamber filled with gas which is filled with pure helium of some 10 atm pressure. The dependence of the counting velocity upon pressure of the various gas mixtures (pure He, He + Xe, He + Ar, He + O<sub>2</sub>, He + N<sub>2</sub>) was measured and the corresponding curves are shown. There are 7 figures.

SUBMITTED: February 5, 1957  
AVAILABLE: Library of Congress

Card 1/1

21(7)  
AUTHORS:

Baldin, S. A., Man'ko, V. I.

SOV/56-36-6-50/66

TITLE:

Polarization of Protons in Scattering on C<sup>12</sup> (Polyarizatsiya protonov pri rasseyanii na C<sup>12</sup>)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,  
Vol 36, Nr 6, p 1937 (USSR)

ABSTRACT:

An analysis of the elastic scattering of protons makes it possible to determine the position and characteristics of the nuclear levels. Reich et al (Ref 1) carried out such investigations; they investigated the elastic scattering of protons on C<sup>12</sup>-nuclei in the interval of 1.5-5.5 Mev and carried out the complete phase analysis. They identified the following levels of the N<sup>13</sup>-nucleus: 1.698(1/2<sup>-</sup>), 1.748(5/2<sup>+</sup>), 4.908(5/2<sup>+</sup>), and 5.37(3/2<sup>+</sup>). The authors of the present "Letter to the Editor" made use of the data of the phase analysis of reference 1 for the purpose of calculating the dependence of the polarization of protons and the cross sections upon the energy in the (p-C<sup>12</sup>) scattering (energy interval 2.5-4.5 Mev) at scattering angles of 0-180° in the cms. The most important results are

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Polarization of Protons in Scattering on C<sup>12</sup>

SOV/56-36-6-50/66

shown by a diagram. The curves show the energy dependence of polarization for some angles between 30 and 150°. The individual curves differ considerably both with respect to position and shape; polarization is found to be highly sensitive to D-phase values. Thus, a variation of the D<sub>2/3</sub>-phase at 4.5 Mev by 5° varies the amount of polarization by the 2-3-fold. This shows that investigations of polarization may render very exact phase analyses possible. There are 1 figure and 1 reference.

SUBMITTED: February 27, 1959

Card 2/2

S/120/60/000/G1/048/051

E073/6335

AUTHORS: Baldin, S.A. and Gavrilovskiy, B.V.

TITLE: High-pressure, Low-temperature Hermetic Seal

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, Nr 1,  
p 144 (USSR)

ABSTRACT: A gas-tight seal between a gas container and a plexiglas cover, leak-resistant at any pressure between vacuum and 100 atm, at temperatures between 0 and -200°C, can be achieved by an arrangement as shown in the illustration, p 144. A plexiglas cover 1 is pressed against the circular projection on the flange of the container 2 by means of stainless-steel bolts 5, two loose flanges 4 and 6 and Kovar braces 3. The length of the stainless-steel bolts is selected for obtaining the same total contraction or expansion (with changing temperature) as occurs in the plexiglas cover, and Kovar braces. There are 1 figure and 1 Soviet reference.

SUBMITTED: December 22, 1958

Card 1/1



BALDIN, S. A. and MATVEYEV, V. V.

"Gaseous Scintillation Counter for Neutron Fluxes Spectrometry Filled  
with HE -3,

report submitted for the IAEA conf. on Nuclear Electronics, Belgrade, Yugoslavia  
15-20 May 1961

REF ID: A6514257

WT m RES APP/C/AS

ACCESSION NR: AP3004879

8/0120/63/000/004/0005/0019

AUTHOR: Baldin, S. A.; Matveyev, V. V.

53

TITLE: Gas scintillation counters (Review)

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1963, 5-18

TOPIC TAGS: counter, nuclear radiation counter, gas counter, scintillation counter

ABSTRACT: A review is presented that generalizes the data on the development and use of gas scintillation counters published in periodicals (mostly American) from 1952 through 1962. Physical phenomena accompanying scintillation in gases are considered. Structural components and schemes of gas counters are described. The fundamental physical characteristics of the counters are given. The more important applications listed are: alpha-particle detector, fission-fragment detector, and neutron spectrometer. In the conclusion, the role of the gas scintillation counter among other particle-detecting devices is indicated.

Cord 1/21

ACCESSION NR: AP5002-48

S/0120/64/000/066/0056/0060

*W. C. T. W. R. - waiting, S. -*

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**ABSTRACT:** Results are reported of an experimental investigation of the effect of density, thickness, and number  $Z$  of the elements of a scatter shield on back

Mg, Al, Ti, Fe, Ni, Cu, Zn, Cd, Pb. It was found that the principal method of reducing back scattering by crystal mounting structures is to make the magnesium-oxide layer and container walls thinner (0.2–0.3 mm). Materials with a low  $Z$  and a low specific gravity (such as organic compositions and

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plastics) are heat shielded. The thickness of the heat shield is determined by the amount of material and the size of the shield are determined by specified conditions. However, in any case, it should be kept in mind that the back scattering decreases

SHEYDER, V.Ye., kand. ekon. nauk, dots.; TUROVSKIY, I.G., prof.;  
ZAK, M.A., kand. ekon. nauk; BOGUSLAVSKIY, A.I., inzh.-  
ekon.; SANKISKIY, D.I., kand. ekon. nauk, dots.;  
ASTANSKIY, L.Yu., kand. tekhn. nauk; GUSEV, S.G., inzh.-  
ekon.; GORSKOV, V.A., inzh.-ekon. [deceased]; IL'IN, S.I.,  
inzh.-ekon.; BALDIN, S.A., inzh.-ekon.; NAUMOVA, L.N., kand.  
ekon. nauk

[Economics, organization and planning for the building  
materials industry] Ekonomika, organizatsiya i planirovaniye  
promyshlennosti stroitel'nykh materialov. Moskva, Stroi-  
izdat, 1965. 425 p.

(MIRA 18:10)

L-33184-66 EWT(1) IJP(c) AT

ACC NR. AR6016168

SOURCE CODE: UR/0058/65/000/011/0017/0017

AUTHORS: Baldin, S. A.; Matveyev, V. V.; Radyvanyuk, A. N.; Sokolov, A. D.

7/

B

TITLE: Development of apparatus for the investigation of high-temperature plasma by  
means of penetrating radiation

SOURCE: Ref. zh. Fizika, Abn. 11G133

KEY WORDS: Tr. Fizvuz, n.-i, in-ta priborostr., vyp. 1, 1964, 102-198

TOPIC TAGS: plasma diagnostics, high temperature plasma, x radiation, neutron  
radiation, plasma magnetic field, RADIATION COUNTER, RADIATION SPECTROMETER

ABSTRACT: The fundamental problems are considered in connection with the development  
of electronic-physics apparatus for the diagnostics of high-temperature current  
plasma by registration and spectrometry of the hard x-ray and neutron radiations.  
The requirements imposed on the apparatus and also the testing of the apparatus are  
investigated on the basis of the operating conditions of toroidal installations  
with strong magnetic field. [Translation of abstract]

TOP CODE: 20

CMI 10/10/86

34785-66 EWT(m)/E/EWF(U)/ETI IJP(e) JD/JG  
ACC NR: AR6017214

SOURCE CODE: UR/0058/65/066/012/A059/A059

AUTHORS: Baldin, S. A.; Mysev, I. P.

TITLE: An optimal geometry of measurement of small gamma activities by means of a scintillation counter //

SOURCE: Ref. zh. Fizika, Abs. 12A511

REF SOURCE: Tr. Soyuzn. n.-i. in-ta priborostr., vyp. 2, 1965, 24-27

TOPIC TAGS: sodium compound, iodide, scintillation detector, gamma detector, activated crystal

ABSTRACT: The authors present calculations of optimal relations between the diameters of the "well" and the crystal for different dimensions of NaI(Tl) crystals at certain values of the  $\gamma$ -quantum energy. The formulas obtained during the course of the investigation can be used also for other types of scintillating materials. To simplify the calculations, they were carried out for the case when the radioactive solution is in the form of a sphere of radius  $r$  and is surrounded by a spherical shell made up of a scintillator of radius  $R$ . For low energies (up to 100 keV) the optimal ratio  $r/R$  is close to unity; for energies larger than 1 Mev the optimum  $r/R$  approaches 0.76. N. Zevina [Translation of abstract].

SUB CODE: 18,20 //

Cord 1/1 //

ACC NR: AR6013635

SOURCE CODE: UR/0058/65/000/010/V031/V031

AUTHOR: Baldin, S. A.

TITLE: Back scattering of  $\gamma$ -rays in scintillation counters

SOURCE: Ref. zh. Fizika, Abs. 10V255

REF SOURCE: Tr. Soyuzn. n.-i. in-ta priborostr., vyp. 1, 1964, 28-35

TOPIC TAGS: scintillation counter, gamma scattering, gamma particle detector,  
*photomultiplier / FE U-15 photomultiplier*

TRANSLATION: An extensive study was made of the degree to which back scattering of  $\gamma$ -rays is a function of the thickness and type of scattering material (in contact with the scatterer and detector) and the dimensions of the protective screen. The results are reported. The relative amounts of back scatter with respect to the several factors was studied with a specially designed  $\gamma$ -detector. The pick-up was a standard NaJ(Tl) crystal, 40 x 40 mm in an FEU-13 photomultiplier. A pulse from the photomultiplier went through a cathode repeater directly to a recorder. Special "thin" sources of Cs<sup>137</sup> were used in the measurements. Back scatter was measured from carbon, magnesium, aluminum, titanium, iron, nickel, copper, zinc, cadmium, and lead. 30-mm discs of various thicknesses were prepared from these materials. Graphs of the back scatter as a function of atomic number Z and specific gravity of the material were constructed from the data. L. Sokolov.

SUB CODE: 20

Card 1/1

BALDIN, V. A.

Baldin, V.A. and Dernbush, Ye.Ye, "Slotted belts", Stroit. prom-st', 1949, No. 5,  
p. 18-21

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

BALDIN, V.A.

The Committee on Stalin Prizes for the Science of Ministry of Higher Education of the USSR in the field of science and inventions announces that the following scientific work, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for 1954. (Source: Sovetskaya Shkola, Moscow, No. 10, p. 10; 5 Apr. 1954)

Author  
Strelatskiy, N.S.  
Ganiyev, A.N.  
Baldin, V.A.  
Belenya, Ye. N.  
Lessig, Ye. N.  
Tibin, S.M.

Title of work  
"Steel Construction"  
(textbook, 2nd edition)  
Moscow Construction Engineering  
Institute imeni V.V. Krybyshov

Published by

U.S. AIR FORCE LIBRARY

1. BALDIN, V.A.; BRUDSKY, A.Ya.
2. USSR '600)
4. Electric Welding
7. Manual arc welding of the joints of concrete reinforcements with electrode sets, V.A. Baldin, A.Ya. Brodskiy, Avtob.delo 24 no. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

BALDIN, V. N.

STRELINSKIY, N.S., professor, doktor tekhnicheskikh nauk; KELDISH, V.N., professor, doktor tekhnicheskikh nauk; GOZODEV, A.A., professor, laureat Stalinskoy premii, doktor tekhnicheskikh nauk; OZHISHCHIK, L.I., professor, doktor tekhnicheskikh nauk; GOL'DENBLAT, I.I., doktor tekhnicheskikh nauk; KARTASHOV, K.N., kandidat tekhnicheskikh nauk; BALDIN, V.A., kandidat tekhnicheskikh nauk; TAL', K.E., kandidat tekhnicheskikh nauk.

Discussion of the problem of building calculations using the method of limiting states. S'troi.prom. 32 no.4:41-42 Ap '54. (MLRA 7:5)

1. Chlen-korrespondent Akademii nauk, deyatel'nyy chlen Akademii arkhitektury (for Streletskiy).
2. Vitsa-president Akademii arkhitektury (for Keldish).
3. Chlen-korrespondent Akademii arkhitektury (for Gvozdev).
4. Chlen-korrespondent Akademii arkhitektury (for Ozhishchik).  
(Building—Tables, calculations, etc.) (Reinforced concrete construction)

SOV/124-57-3-3721

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 153 (USSR)

AUTHOR: Baldin, V. A.

TITLE: The Resistance of low-carbon Steel to Plastic Deformation (Soprotivleniye malouglezhistoy stali plasticheskim deformatsiyam)

PERIODICAL: V sb.: Issledovaniye prochnosti, plastichnosti i polzuchesti stroit. materialov. Moscow, 1955, pp 57-68

ABSTRACT: The paper analyzes in a general way the strength properties of low-carbon steel the structure whereof consists of ferrite and pearlite grains. Some observational results on the changes in the micro-structure under the effect of a small plastic deformation are adduced, and it is shown that these results are in better agreement with the third theory of strength (of the maximum shearing stresses) than with the theory of the constancy of the potential energy of a change of shape.

P. O. Pashkov

Card 1/1

BALDIN, V.A., kandidat tekhnicheskikh nauk, redaktor; ZELYATROV, V.N.,  
nauchnyy redaktor

[Studies on steel structures] Issledovaniia po stal'nym konstruktsiiam.  
Pod red. V.A.Baldina. Moskva, Gos. izd-vo lit-ry po stroit. i arkhi-  
tekture, 1956. 210 p.  
(MLRA 9:11)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut pro-  
myshlennyykh sooruzheniy.  
(Steel, Structural)

MUKHANOV, Konstantin Konstantinovich, kandidat tekhnicheskikh nauk; BALDIN,  
V.A., kandidat tekhnicheskikh nauk, retsensent; TUBIN, S.M., kandidat  
tekhnicheskikh nauk, nauchnyy redaktor; KOTIK, B.A., redaktor  
izdatel'stva; TOKER, A.M., tekhnicheskiy redaktor

[The planning of steel structural elements] Proektirovaniye stal'nykh  
konstruktsii. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture,  
1956. 374 p.  
(Steel, Structural)

SOV/124-57-9-11080

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, p 166 (USSR)

AUTHORS: Baldin, V. A., Gemmerling, A. V., Trofimov, V. I.

TITLE: Experimental Investigation of the Elastic-plastic Working of Low-carbon Steel Subject to Simple and Compound Loads (Eksperimental'noye issledovaniye uprugo-plasticheskoy raboty malouglerodistoy stali pri prostom i slozhnom nagruzheniyakh)

PERIODICAL: V sb.; Issledovaniya po stal'nym konstruktsiyam, Moscow, 1956,  
pp 33-58

ABSTRACT: Experimental investigations are made of the stress-strain relationship (initial strain of up to 2%) of mark St.0 and St.3 soft steel subjected to a plane stress condition (simple and compound loads). A special test installation is used for biaxial compression and biaxial compression-tension. Compression loads were applied by means of a flexible rack that minimized the effects of friction on the process of strain development. Strain was applied by means of a 100-ton jack along one axis and by means of a 300-ton universal load-testing machine along the other axis. Biaxial compression specimens consisted of plates measuring from 82x82 mm up to 83.5x83.5 mm with a thickness of from

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SOV/124-57-9-11080

Experimental Investigation of the Elastic-plastic Working of Low-carbon (cont.) ..

14.5 to 16 mm. Tension-compression tests were performed on strips measuring 800 mm with a 16x40 mm cross section. The authors came to the conclusion that for simple biaxial loads the yield point occurs between the conditions of Saint Venant and those of Hencky-Huber-Mises, but nearer to that of Saint Venant. It is noted that the possibility of constructing generalized stress-strain curves is qualitatively substantiated.

P. O. Pashkov

Card 2/2

~~BALDIN, V.A., kandidat tekhnicheskikh nauk; GOLEMKO, G.O., kandidat tekhnicheskikh nauk; PISCHIKOV, V.O., kandidat tekhnicheskikh nauk.~~

Bent-shaped steel for construction work. Stroi. prom. 34 no.3:32-36 Mr  
'56. (Steel, Structural) (MIRA 9:6)

• 100101N E 77

24-58-3-20/38

AUTHORS: Baldin, V.A. and Trofimov, V.I. (Moscow)

TITLE: Experimental Investigation of the Conditions of Flow of  
Engineering Steels on Flat Specimens (Eksperimental'noye  
issledovaniye usloviya tekuchesti stroitel'noy stali na  
ploskikh obraztsakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh  
Nauk, 1958, Nr 3, pp 126-129 (USSR)

ABSTRACT: The change over from the elastic to the plastic state is determined on the basis of the well-known theory of constant elastic energy for changing the shape (Hankey, Huber and Von Miseses). According to earlier work of Oding and Ivanova (Refs. 5, 6) and Trofimov (Ref. 7), a characteristic feature of ductile steel is that the transition into the plastic state does not take place simultaneously through the entire volume of the material. At first, the plastic deformation develops in relatively narrow sections, the material between these remaining elastic or only slightly affected by plastic deformations. The local nature of the plastic deformations and the development of these deformations mainly along the planes of the maximum tangential stresses justifies the

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24-58-5-20/38

Experimental Investigation of the Conditions of Flow of Engineering Steels on Flat Specimens.

assumption that the beginning of plastic deformations for engineering steels should be in better agreement with the theory of the maximum tangential stress (St. Venant). Torsion and tensile tests on cylindrical hollow specimens made of some metals with a cubic lattice (including ductile steel) by Kish'kin and Ratner (Refs.8, 9), biaxial tensile tests on large diameter steel tubes by I. P. Petrov (Ref.10) and also biaxial compression, tension and combined compression-tension tests by Baldin et alii (Ref.11) confirm the here-expressed assumption. In this paper experiments are briefly described which were carried out on this subject in TsNIPS. A characteristic feature of certain steel structures is that they are made up of sheets or slightly twisted sheet elements. In most cases they are subjected to slow loading involving only insignificant plastic deformations. The aim of the experiments was to simulate as far as possible the real conditions of operation of a steel structure and therefore, instead of tubular specimens, flat specimens were used. The loading speed was very low ( $0.01 - 0.02 \text{ kg/mm}^2\text{sec}$ ). The transition of the steel from the elastic to the plastic state was determined from the graph according to the point of

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24-58-3-20/38

Experimental Investigation of the Conditions of Flow of Engineering Steels on Flat Specimens.

transition from the curvilinear section into the horizontal rectilinear one. A continuation of a line drawn through this point parallel to the graph of the elastic work intersected on the abscissa a residual deformation of about 0.05%. A total of 34 experiments were made which are described in detail. In Fig.4 the obtained results are compared with theoretical data whereby the dotted line I represents the conditions of flow according to St. Venant whilst the dotted line curve II shows the flow conditions according to Hankey, Huber and Von Mises. The average values of  $\sigma_2/\sigma_T$  (main stress/yield point) for all the experiments are represented by a continuous line curve of this graph. The graph shows that the maximum value  $\sigma_2$  at which the material starts to flow according to the average curve, does not exceed 4.4% of the yield point determined in the case of uniaxial tension. Two combined compression/tension tests ( $\sigma_1 = -\sigma_2$ ) have shown that the flow of the material started for a  $\sigma_2/\sigma_T$  ratio of

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24-58-5-20/58

Experimental Investigation of the Conditions of Flow of Engineering Steels on Flat Specimens.

0.5 and 0.535. It is concluded that for low carbon engineering steels with a clearly pronounced yield point area, the change over of the material from the elastic into the plastic state in the case of a 2-dimensional stress state and slow loading is better described by the theory of maximum tangential stress (St. Venant) than by the theory of the constant elastic energy of shape-changing (Hankey, Huber and Von Mises). There are 4 figures, 2 of which are graphs, and 11 references. Of these, 9 are Soviet, 1 German and 1 English.

SUBMITTED: July 3, 1957.

Card 4/4 1. Steel--Elasticity 2. Steel--Transition 3. Steel--Plasticity  
4. Steel--Deformation

BALDIN, V.A., kand. tekhn. nauk; DORNBUSH, Ye.Ye., kand.-tekhn. nauk.

Grooved bolts. Stroi. prom. 27 no.5:18-21 My '59.

(MIRA 13:2)

1.TSentral'nyy nauchno-issledovatel'skiy institut promyshlennogo  
stroitel'stva.  
(Bolts and nuts)

BALDIN, V.A. (Moskva); TROYINOV, V.I. (Moskva)

Elastic-plastic performance of steel elements subjected to  
composite loads. Stroj.mekh.i rasch.skor. 1 no.6:19-23  
159. (MIRA 13:4)  
(Building, Iron and steel) (Strains and stresses)

GVOZDEV, A.A., prof., doktor tekhn.nauk; DMITRIYEV, S.A., kand.tekhn. nauk; MULIN, N.M., kand.tekhn.nauk; BALDIN, V.A., kand.tekhn. nauk; BRODSKIY, A.Ya., kand.tekhn.nauk; SOKOLOVSKIY, P.I., kand.tekhn.nauk; FRIDMAN, A.M., mladshiy nauchnyy sotrudnik. Prinimal uchastiye MADATYAN, S.A., mladshiy nauchnyy sotrudnik. KLIMOVA, G.D., red.izd-va; NAUMOVA, G.D., tekhn.red.

[Instructions for using hot-rolled ribbed 30KhG2S steel reinforcements in making prestressed reinforced-concrete construction elements] Uказаний по применению горячекатаной арматуры периодического профиля из стали марки 30KhG2S в предварительно напряженных железобетонных конструкциях. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 21 p. (MIRA 14:1)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona (for Gvozdev, Dmitriyev, Mulin). 3. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev). 4. Laboratoriya metallicheskikh konstruktsiy Tsentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsiy (for Baldin, Brodskiy, Sokolovskiy, Fridman). 5. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Baldin). 6. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stva (for Medaty.n).  
(Prestressed concrete) (Reinforcing bars)

GUSAROV, N.N., inzh. Prinimali tuhastiye: ANDREYEV, V.V., inzh.; RABOTNOV, B.A., inzh.; PEDOTOV, L.Ye., inzh., nauchnyy red. BALDIM, Y.A., retezentyent; BRODSKIY, A.Ya., kand.tekhn.nauk, retezentyent; SAVALOV, I.G., kand.tekhn.nauk, retezentyent; LEVI, S.S., kand.tekhn.nauk, retezentyent; SOKOLOV, V.S., kand.tekhn. nauk, retezentyent; LEBEDEV, Yu.I., retezentyent; RAZUMOVA, E.D., inzh., retezentyent; DOLGIKH, V.O., inzh., retezentyent; MAKSIMOV, K.G., red.izd-vs; PUL'KINA, Ye.A., tekhn.red.

[Provisional instructions on using gamma rays in controlling welded joints of reinforcements in reinforced-concrete construction elements] Vremennaja instruktsija po kontroliu svernykh soedinenij armatury shhelezobetonnykh konstrukcij prosvechivaniem gamma-luchami. Leningrad, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 46 p.

(MIRA 14:2)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva elektrostantsiy. Tekhnicheskoye upravleniye. 2. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy (for Baldin, Brodskiy). 3. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Baldin). 4. VNIICMS (for Savalov, Levi). 5. Tsentral'naya nauchno-issledovatel'skaya laboratoriya Gosgortekhnadsora (for Sokolov). 6. Zamestitel' glavnogo sanitarnogo inspektora, Sanitarnaya inspeksiya SSSR (for Lebedev). 7. TsNIP Ministerstva stroitel'stva elektrostantsiy (for Razumova). 8. Trakt Sevzapenergomontaš (for Dolgikh).

(Gamma rays--Industrial applications) (Reinforcing bars--Welding)

BALDIN, V.A.; TARANOVSKIY, S.V., prof., doktor tekhn.nauk; KHOKHARIN, A.Kh., kand.tekhn.nauk; BROUDE, B.M., doktor tekhn.nauk; CHUVIKIN, G.M., kand.tekhn.nauk; GURARI, M.D., inzh. [deceased]; LOKSHIN, Ye.E., kand.tekhn.nauk; KOVAL'CHUK, M.F., inzh., red.; STRASHNYKH, V.P., red.izd-va; RIAZANOV, P.Ye., tekhn.red.

[Technical specifications SN 113-60 for designing elements made of aluminum alloys] Tekhnicheskie usloviia proektirovaniia konstruktsii iz aliuminievykh splavov, SN 113-60. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 86 p.

(MIRA 14:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Taranovskiy, Khokharin, Broude, Chuvikin). 3. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Baldin). 4. Gosudarstvennyy proektnyy institut Proektstal'konstruktsiya Glavstroy-projekta pri Gosstroye SSSR (for Gurari, Lokshin).  
(Aluminum alloys)

MASONOV, V.N., BELYAYEV, B.I., BALDIN, V.A., TARANOVSKIY, S.V.,  
KHOKHARIN, A.Kh.

Possibilities of using aluminum and alluminum alloys in construction. Prom. stroi. 38 no.8:36-39 '60. (MIRA 13:8)  
(Alluminum alloys) (Aluminum, Structural)

BALDIN, V.A.; TARANOVSKIY, S.V., doktor tekhn.nauk

Aluminum in construction elements. Izv. Akad. no. 3:64-68 '60.  
(MIRA 13:12)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR  
(for Baldin).  
(Aluminum, Structural)

STRELETSKIY, Nikolay Stanislavovich, prof., doktor tekhn. nauk; GENIYEV,  
A.N., prof.; BELENYA, Ye.I., doktor tekhn. nauk, prof.; BALDIN, V.A.,  
kand. tekhn. nauk, dotsent; LESSIG, Ye.N., kand. tekhn. nauk, dotsent;  
TUBIN, S.M., kand. tekhn. nauk, nauchnyy red.; GORYACHEVA, T.V., red.  
izd-va; GILENSEN, P.G., tekhn. red.

[Metal construction] Metallicheskie konstruktsii. Moskva, Gos. izd-vo  
lit-ry po stroit., arkhit. i stroit. materialam, 1961. 776 p.  
(MIRA 14:9)

1. Chlen-korrespondent AN SSSR i Deystvitel'nyy chlen Akademii stroitel'-  
stva i arkhitektury SSSR (for Streletskiy).  
(Building, Iron and steel)

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PHASE I BOOK EXPLOITATION

SOV/5854

Streletskiy, Nikolay Stanislavovich, Corresponding Member, Academy of Sciences USSR, Professor, Member of the Academy of Construction and Architecture of the USSR; A. N. Geniyev, Professor; Ye. I. Belenya, Doctor of Technical Sciences, Professor; V. A. Baldin, Candidate of Technical Sciences, Docent; and Ye. N. Lessig, Candidate of Technical Sciences, Docent

Metallichеские konstruktsii (Metallic Structures) 3rd ed., rev. Moscow, Gosstroyizdat, 1961. 776 p. Errata slip inserted. 70,000 copies printed.

Scientific Ed.: S. M. Tubin, Candidate of Technical Sciences; Ed. of Publishing House: T. V. Goryacheva; Tech. Ed.: P. G. Gilenson.

PURPOSE: This book was approved by the Ministry of Higher and Secondary Specialized Education USSR as a textbook for civil engineering schools of higher education; it may also be used as a manual by engineers and aspirants.

COVERAGE: The following basic problems in designing metallic structures are discussed: the load-carrying ability of the material and joints; calculation

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Metallic Structures

SOV/5854

methods; arrangement of constructional elements and complexes of industrial and civil buildings with metal frames; large-span buildings; sheet and plate structures; pipelines; and electric-powerline supports. Also discussed are fundamentals of the economics of steel structures and of the use of structural aluminum. Modern types of prestressed constructions (metallic, steel-reinforced concrete, steel-rope, etc.) are also considered. The limit-state methods used are in accordance with SNIIP; substantiation for new engineering design specifications is given. The book was written as follows: N. S. Striletskiy, the Introduction and Chs. I, II, III, V, VI, and XXVI; A. N. Geniyev, Ch. XI through XVII; V. A. Baldin, Ch. VIII; Ye. I. Belenya, Chs. IV, IX, X, and XVIII; and Ye. N. Lessig, Chs. VII and XIX through XXV. There are no references.

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BALDIN, V.A., kand.tekhn.nauk; TROFIMOV, V.I., kand.tekhn.nauk

Investigation of the elastic-plastic properties of structural  
steel in plane stressed condition. Trudy TSNIISK no.4:5-  
34 '61.

(MIRA 15:2)

(Steel, Structural—Testing)  
(Strains and stresses)

BELYAYEV, B.I.; BALDIN, V.A.; SOKOLOVSKIY, P.I.

High-strength low-alloy steel for building elements. Prom.  
stroi. 39 no.5:26-29 '61. (MIRA 14:7)  
(Steel, Structural)

BALDIN, V.A., kand.tekhn.nauk; TROFIMOV, V.I., kand.tekhn.nauk

Study of the development of plastic deformations in  
structural steel in a plane stressed state under complex  
types of loading. Trudy TSNIISK no.13:5-37 '62.  
(MIRA 15:11)

(Steel, Structure--Testing)

MUKHANOV, Konstantin Konstantinovich, kand. tekhn. nauk;  
BALDIN, V.A., retsenzent; TUBIN, S.M., kand. tekhn. nauk,  
nauchnyy red.; BEGAK, B.A., red.izd-va; ~~SERSTNEVA, N.V.~~,  
tekhn. red.

[Metal structures; fundamentals of design] Metallicheskie  
konstruktsii; osnovy proektirovaniia. Moskva, Gosstroi-  
izdat, 1963. 404 p. (MIRA 16:7)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury  
SSSR (for Baldin).  
(Building, Iron and steel)

BRODSKIY, A.Ya., kand. tekhn. nauk; BALDIN, V.A., kand. tekhn. nauk; STRASHNYKH, V.P., red.izd-va; SHCHEVCHENKO, T.N., tekhn. red.

[Argon-arc welding of aluminum alloys for building elements; technological recommendations] Agrono-dugovaya svarka aluminievkh splavov dlia stroitel'nykh konstruktsii; tekhnologicheskie rekomendatsii. Moskva, Gosstroizdat, 1963. 179 p. (MIRA 17:1)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy. 2. Rukovoditel' sektora svarki TSentral'noy laboratorii metallokonstruktsiy TSentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsiy (for Brodskiy). 3. Rukovoditel' TSentral'noy laboratorii metallokonstruktsiy TSentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsiy (for Baldin).

BRODSKIY, A.Ya., kand. tekhn. nauk; BALDIN, V.A., kand. tekhn. nauk; Prinimal uchastiye BARYSHEV, V.E., inzh.

[Argon-arc welding of aluminum alloys for building structures; industrial recommendations] Argon-dugovaia svarka aluminievykh splavov dlia stroitel'nykh konstruktsii; tekhnologicheskie rekomendatsii. Moskva, Gosstroizdat, 1963. 179 p. (MIRA 17:10)

1. Moscow, Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsii.
2. Rukovoditel' sektora svarki Tsentral'noy laboratorii metallokonstruktii Tsentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsii (for Brodskiy).
3. Rukovoditel' Tsentral'noy laboratorii metallokonstruktii Tsentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsii (for Baldin).

GIMMELING, A.V., doktor tekhn. nauk, prof., red.; BALEIN, V.A.,  
kand. tekhn. nauk, red.; ZUBKOVA, M.S., red.

[frostressed steel and cable structures] Stal'nye pro-  
varitei' -napriazhennye i trosovye konstruktsii. Moskva,  
Stroizdat. 1964. 217 p. (MJRA 17:9)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut  
stroitel'nykh konstruktsiy.

BALDIN, V.A.; BELYAYEV, B.I.; SOKOLOVSKIY, P.I.; SHEYNFEL'D, N.M.;  
ARONE, R.G.

Steels of increased and high strength for structural elements.  
(MIRA 17:6)  
Prom. "roi. 41 no.1:17-21 Ja '64.

KOVAL'CHUK, M.F., inzh., red.[deceased]; BALDIN, V.A., red.;  
TUBIN, S.M., kand. tekhn. nauk, red.; LAUT, M.Ya., inzh.  
red.; LARIONOV, A.A., inzh., red.; BALIKHIN, M.I., red.;  
BOGUSHEVICH, Ye.N., inzh., red.; PAVLOV, S.M., inzh.,  
red.; SHIRIN, P.K., kand. tekhn. nauk, red.

[Construction specifications and regulations] Stroitel'-  
nye normy i pravila. Moskva, Gosstroizdat. Pt.2. Sec.V.  
Ch.3.; Pt.3. Sec. A. Ch.5-6. (MIRA 18:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po  
delam stroitel'stva. 2. Gosstroy SSSR (for Koval'chuk,  
Larionov, Bogushevich). 3. Chlen-korrespondent Akademii  
stroitel'stva i arkhitektury SSSR (for Baldin). 4. TSen-  
tral'nyy nauchno-issledovatel'skiy institut stroitel'nykh  
konstruktsiy Akademii stroitel'stva i arkhitektury SSSR  
(for Tubin). 5. Gosudarstvennyy institut po proyektirovaniyu,  
issledovaniyu i ispravleniyu stal'nykh konstruktsiy i  
mostov (for Laut). 6. Mezhdunovodstvennaya komissiya po  
peresmotru Stroitel'nykh norm i pravil (for Balikhin, Pavlov).  
7. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii  
i tekhnicheskoy pomoshchi stroitel'stviu Akademii  
stroitel'stva i arkhitektury SSSR (for Shirin).

BALDIN, V.A., doktor tekhn.nauk; KOCHERGOVA, Ys.Ye., kand.tekhn.nauk

Beams made of two sorts of steel. Prom.stroi. 42 no.11:20-23 N  
'64. (MIRA 18:8)

ABSTRACT: The methods of cold brittleness evaluation in steel were specified  
in the standard GOST 10180-74.

RESULTS: Factors which influence the formation of a white layer in the  
specimens were determined.

KEY WORDS: COLD BRITTLENESS, METALLOGRAPHY, MICROSTRUCTURE, POLARIZATIONAL MICROSCOPY.

L 56998-65

ALL INFORMATION CONTAINED

Variation of ductility to fracture shape was examined in steel at R&F specimens with different notch geometry. No definite correlation between ductility and fracture surface was determined due to uniform variation of ductility and firmness of the fracture surface with increasing temperature. The variation of ductility with notch size, notch angle, and notch radius was found to be little increase of porosity in the brittle strains and the last stage of the test.

While at high stresses (when the elimination occurred at high temperatures) the temperature was little affected by the stress intensity. On the other hand, at low temperatures, the effect of stress intensity was more pronounced.

Consequently, the stress intensity was considered to be the most important factor in the results of evaluation of heat for determining the fracture range of structures.

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ACCESSION NR: AP5012497

steel exploitation, providing that certain limitations are observed. This art.  
has: 2 tables.

ASSOCIATION: Tsvetnoy metallo- i soderzhevnyy institut struktur'nykh  
konstruktsiy im. V. A. Kucherenko, (Central) Scientific Research Institute of  
Building Structures)

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BALDIN, V.A., doktor tekhn.nauk; SHEYNFEL'D, N.M., kand.tekhn.nauk

Roof trusses from steel pipes. Prom.stroi. 43 no.12:27-29  
'65. (MIRA 18:12)

BALDIN, V.A., doktor tekhn. nauk; SHFYNKEVICH, N.M., kand. tekhn. nauk

Using thin-walled closed profiles in metal structures.  
(MIRA 18:3)  
Prom. stroy. 42 no.1:32-34 '65.

BAUDIN, V.A., GLADSHTEYN, L.I., MILLER, V.Ya., SIDOROV, A.N.

Causes of the breakdown of a conveyor gallery. Prom. stroi.  
(MIRA 18:12)  
43 no. 11:13-17 '65.

RALDIN, V.A. (Moskva)

Designing riveted metal elements according to limiting states.  
Stroi. mekh. i rasch. soor. 3 no. 5:25-26 '61. (MIRA 14:10)  
(Elastic plates and shells)

REEL #32

BALAKHNA TO VRB V.T.  
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